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Fourth Report Calendar Year 1959
Also Cumulative Report for 1956 through 1959

INFANT

and

NEONATAL MORTALITY

and

STILLBIRTH RATES

by

MONTANA HOSPITALS

Prepared by

Montana State Board of Health
Division of Child Health Services
Division of Records and Statistics
-and-

Montana Medical Association
Maternal & Child Welfare Committee

Helena, Montana

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FOREWORD

TO: Hospital Administrators
Medical Staffs, and Nurses

This is the fourth annual infant and fetal mortality report prepared for disseminating vital information to the medical and nursing professions and to hospital administrators. Its purpose is aimed to improve the caliber of maternal and newborn care in Montana hospitals.

As in previous years all hospitals in Montana doing obstetrics cooperated with the State Board of Health and the Maternal and Child Welfare Committee of the Montana Medical Association by returning, quarterly, information on the number of live births, stillbirths, neonatal, and infant deaths occurring in their respective hospitals. This information has been tabulated for each of four groups representing a classification by number of hospital beds.

In 1959 there were 17,448 live births in Montana (by place of occurrence) for a rate of 26.1 per 1,000 estimated population. There were 332 infant deaths with a rate of 19.2 per 1,000 live births. Of these, there were 281 neonatal deaths with a rate of 16.2. There were also 214 fetal deaths with a rate of 12.3 per 1,000 live births. The perinatal death rate was 28.6 per 1,000 live births.

Because of the interest shown in previous reports of this type it has been decided to continue this study. It is hoped that hospitals and medical staffs will continue to cooperate by reporting mortality and by continuing to support the perinatal death studies. This year hospitals are ranked on the basis of their neonatal death rates instead of infant deaths as in previous reports. It was felt that by so doing a more accurate picture of the obstetric and newborn care rendered would be obtained. The hospital ranked number 1 in each group has the lowest neonatal death rate in that bed class. Your hospital is checked in red in the report. It is further hoped that the administrators, medical staffs, and nurses will review the report and consider where improvements can be made in their own hospital.

In many hospitals the number of deliveries and infant deaths are so small that a one-year study can often be misleading. It was, therefore, thought that a cumulative report would show more accurate data. Four year and yearly comparative tables for the years 1956 through 1959 are included.

Consultation in connection with construction in hospitals, with problems in the care of the premature and newborn, and with the control of communicable diseases is available on request through the State Board of Health.

Montana State Board of Health
Maternal and Child Welfare Committee
of the Montana Medical Association

1 A - GENERAL HOSPITALS
(100 beds or more)

Montana - 1959

Infant and Fetal Mortalities

Neonatal Rank in Group	Number of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth
TOTAL	7,546	165	27	138	90	MEAN	21.9	3.6	18.3
1	381	6	3	3	2		15.5	7.9	5.2
2	931	14	5	9	17		15.0	5.4	18.3
3	463	7	1	6	7		15.1	2.2	15.1
4	479	7	0	7	8		14.6	0.0	16.7
5	917	21	6	15	9		22.9	6.5	9.8
6	386	7	0	7	10		18.1	0.0	25.9
7	1,292	28	3	25	13		21.7	2.3	10.1
8	719	16	1	15	8		22.3	1.4	11.1
9	931	26	4	22	5		27.9	4.3	5.4
10	1,047	33	4	29	11		31.5	3.8	10.5

1 - GENERAL HOSPITALS
(100 beds or more)

Montana - 1956 through 1959

Number of Live Births		Number of Deaths				Rate per 1,000 Live Births				
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth	
TOTALS	31,386	633	89	544	384	MEAN	20.0	2.8	17.2	12.6
1956	7,933	172	29	143	103		21.7	3.7	18.0	13.0
1957	8,195	161	22	139	89		19.6	2.6	17.0	10.9
1958	7,712	135	11	124	102		17.5	1.4	16.4	13.2
1959	7,546	165	27	138	90		21.9	3.6	18.3	11.9

1 C - GENERAL HOSPITALS
(100 beds or more)

Montana - 4 Year Period-1956-1959

Neonatal Rank in Group	Number of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth
TOTAL	31,386	633	89	544	384	MEAN 20.0	2.8	17.2	12.2
1	3,560	54	12	42	46	15.2	3.4	11.8	12.9
2	1,512	25	6	19	12	16.5	3.9	12.6	7.9
3	2,068	36	2	34	30	17.4	0.9	16.4	14.5
4	5,485	98	7	91	62	17.9	1.3	16.6	11.3
5	3,830	78	15	63	33	20.4	3.9	16.7	8.6
6	3,421	79	20	59	37	23.1	5.8	17.2	10.8
7	2,318	49	8	41	44	21.1	3.4	17.7	19.0
8	1,553	30	0	30	30	19.3	0.0	19.3	19.3
9	4,242	103	13	90	53	24.3	3.1	21.2	12.4
10	3,397	81	6	75	37	23.8	1.8	22.1	10.9

2 A - INTERMEDIATE GENERAL HOSPITALS
(40-99 beds)

Montana - 1959

Infant and Fetal Mortalities

Neonatal Rank in Group	Number of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth
TOTAL	6,089	104	10	94	71	MEAN 17.1	1.6	15.4	11.7
1	70	0	0	0	0	0.0	0.0	0.0	0.0
2	55	0	0	0	0	0.0	0.0	0.0	0.0
3	213	1	0	1	2	4.7	0.0	4.7	9.4
4	205	1	0	1	0	4.9	0.0	4.9	0.0
5	306	2	0	2	5	6.5	0.0	6.5	16.4
6	378	3	0	3	4	7.9	0.0	7.9	10.6
7	369	3	0	3	4	8.1	0.0	8.1	10.8
8	279	4	1	3	2	14.3	3.6	10.7	7.2
9	234	6	2	4	2	21.4	8.5	11.9	8.5
10	644	9	1	8	10	14.0	1.6	12.4	15.5
11	72	1	0	1	0	13.9	0.0	13.9	0.0
12	607	9	0	9	5	14.8	0.0	14.8	8.2
13	378	6	0	6	5	15.9	0.0	15.9	13.2
14	557	9	0	9	10	16.2	0.0	16.2	17.9
15	363	8	2	6	1	22.0	5.5	16.5	2.8
16	360	8	1	7	8	22.2	2.8	19.4	22.2
17	414	14	3	11	6	33.8	7.2	26.7	14.5
18	168	5	0	5	1	29.6	0.0	29.6	5.9
19	417	15	0	15	6	35.9	0.0	35.9	14.4

2 B - INTERMEDIATE GENERAL HOSPITALS
(40-99 beds)

Montana - 1956 through 1959

Number of Live Births		Number of Deaths				Rate per 1,000 Live Births			
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth
TOTALS	22,666	420	56	364	289	MEAN 18.5	2.5	16.1	12.8
1956	5,531	103	23	80	81	18.6	4.2	14.5	14.6
1957	5,603	104	15	89	71	18.6	2.7	15.9	12.7
1958	5,443	109	8	101	65	20.0	1.5	18.6	11.9
1959	6,089	104	10	94	71	17.1	1.6	15.4	11.7

2 C - INTERMEDIATE GENERAL HOSPITALS
(40-99 beds)

Montana - 4 Year Period-1956-1959

Neonatal Rank in Group	Number of Live Births	Number of Deaths				Rate per 1,000 Live Births				
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth	
TOTAL	22,666	420	56	364	289	MEAN	18.5	2.5	16.1	12.8
1	807	4	1	3	1	5.0	1.2	3.7	1.2	
2	860	6	0	6	9	7.0	0.0	7.0	10.5	
3	945	15	6	9	13	15.9	6.4	9.5	13.8	
4	2,546	36	7	29	24	14.2	2.7	11.4	9.4	
5	363	7	2	5	2	19.3	5.5	13.8	5.5	
6	287	5	1	4	2	17.4	3.5	13.9	6.9	
7	1,651	25	2	23	24	15.7	1.2	14.5	15.0	
8	1,431	25	4	21	19	17.5	2.8	14.7	13.3	
9	1,204	19	0	19	13	15.8	0.0	15.8	10.8	
10	2,504	44	3	41	35	17.6	1.2	16.4	13.9	
11	1,553	28	2	26	35	18.0	1.3	16.7	22.5	
12	169	3	0	3	2	17.7	0.0	17.7	11.9	
13	635	15	3	12	12	23.6	4.7	18.9	18.9	
14	1,416	33	6	27	12	23.3	4.2	19.1	8.5	
15	1,302	29	3	26	20	22.3	2.3	20.0	15.4	
16	963	22	2	20	13	22.8	2.1	20.8	13.5	
17	1,424	33	3	30	17	23.2	2.1	21.1	11.9	
18	1,104	25	1	24	15	22.6	0.9	21.7	13.6	
19	1,502	46	10	36	21	30.6	6.7	23.9	14.0	

3 A - SMALL GENERAL HOSPITALS
(10-39 beds)

Montana - 1959

Infant and Fetal Mortalities

Neonatal Rank in Group	Number of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth
TOTAL	3,603	62	14	48	50	MEAN 17.0	4.0	13.4	14.0
1	218	2	2	0	7	9.1	9.1	0.0	32.1
1	152	0	0	0	0	0.0	0.0	0.0	0.0
1	125	0	0	0	1	0.0	0.0	0.0	8.0
1	99	0	0	0	1	0.0	0.0	0.0	10.1
1	89	0	0	0	1	0.0	0.0	0.0	11.2
1	89	0	0	0	3	0.0	0.0	0.0	33.7
1	77	0	0	0	2	0.0	0.0	0.0	26.0
1	57	0	0	0	1	0.0	0.0	0.0	17.5
1	48	0	0	0	0	0.0	0.0	0.0	0.0
1	48	0	0	0	1	0.0	0.0	0.0	20.9
1	41	0	0	0	0	0.0	0.0	0.0	0.0
1	39	0	0	0	0	0.0	0.0	0.0	0.0
1	16	0	0	0	0	0.0	0.0	0.0	0.0
1	2	0	0	0	0	0.0	0.0	0.0	0.0
1	0	0	0	0	0	0.0	0.0	0.0	0.0
2	106	1	0	1	0	9.4	0.0	9.4	0.0
3	195	5	3	2	1	25.7	15.4	10.3	5.1

3 A - SMALL GENERAL HOSPITALS
(10-39 beds)
(Continued)

Montana - 1959

Infant and Fetal Mortalities

Neonatal Rank in Group	Number of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth
4	174	2	0	2	1	11.5	0.0	11.5	5.8
5	74	1	0	1	1	13.5	0.0	13.5	13.5
6	142	3	1	2	2	21.1	7.0	14.1	14.1
7	69	1	0	1	1	14.5	0.0	14.5	14.5
7	69	1	0	1	1	14.5	0.0	14.5	14.5
8	68	1	0	1	0	14.7	0.0	14.7	0.0
9	135	3	1	2	4	22.2	7.4	14.8	29.6
10	265	4	0	4	5	15.1	0.0	15.1	18.8
11	65	1	0	1	0	15.4	0.0	15.4	0.0
12	65	1	0	1	2	15.4	0.0	15.4	30.8
13	255	4	0	4	4	15.7	0.0	15.7	15.7
14	156	3	0	3	5	19.0	0.0	19.0	32.1
15	46	2	1	1	1	43.5	21.7	21.7	21.7
16	122	5	0	5	0	24.6	0.0	24.6	0.0
17	39	1	0	1	0	25.6	0.0	25.6	0.0
18	112	3	0	3	1	26.8	0.0	26.8	8.9
19	142	5	1	4	0	35.2	7.0	28.2	0.0
20	120	9	5	4	3	75.0	41.7	33.3	25.0
21	84	4	0	4	1	47.6	0.0	47.6	11.9

3 B - SMALL GENERAL HOSPITALS
(10-39 beds)

Montana - 1956 through 1959

Infant and Fetal Mortalities

Number of Live Births		Number of Deaths				Rate per 1,000 Live Births				
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth	
TOTALS	14,493	310	83	227	205	MEAN	21.4	5.7	15.6	14.2
1956	3,596	86	19	67	41		23.9	5.3	18.6	14.4
1957	3,826	86	33	53	56		22.5	8.6	13.9	14.6
1958	3,468	76	17	59	58		21.9	4.9	17.0	17.0
1959	3,603	62	14	48	50		17.0	4.0	13.4	14.0

3 C - SMALL GENERAL HOSPITALS
(10-39 beds)

Montana - 4 Year Period-1956-1959

Infant and Fetal Mortalities

Neonatal Rank in Group	Number of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth
TOTAL	13,640	270	59	211	185	MEAN 19.8	4.3	15.5	13.4
1	78	3	3	0	1	38.5	38.5	0.0	12.8
2	300	1	0	1	7	3.3	0.0	3.3	23.3
3	286	1	0	1	2	3.5	0.0	3.5	7.0
4	240	1	0	1	3	4.1	0.0	4.1	12.5
5	179	1	0	1	2	5.6	0.0	5.6	11.2
6	339	4	2	2	5	11.8	5.9	5.9	14.7
7	466	5	1	4	5	10.7	2.1	8.6	10.7
8	186	2	0	2	2	10.8	0.0	10.8	10.8
9	90	1	0	1	1	11.1	0.0	11.1	11.1
10	598	7	0	7	3	11.7	0.0	11.7	5.0
11	654	8	0	8	2	12.2	0.0	12.2	3.1
12	478	7	1	6	3	14.6	2.9	12.6	6.3
13	388	6	1	5	9	15.5	2.6	12.9	23.2
14	580	9	1	8	14	15.4	1.7	13.8	24.1
15	713	19	9	10	13	26.6	12.6	14.0	18.2
16	419	6	0	6	5	14.3	0.0	14.3	11.9

3 C - SMALL GENERAL HOSPITALS
(10-39 beds)
(Continued)

Montana - 4 Year Period-1956-1959

Infant and Fetal Mortalities

Neonatal Rank in Group	Number of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth
17	339	5	0	5	2	14.7	0.0	14.7	5.9
18	200	5	2	3	1	25.0	10.0	15.0	5.0
19	529	8	0	8	7	15.1	0.0	15.1	13.2
20	329	6	1	5	4	18.1	3.0	15.2	12.1
21	963	18	3	15	13	18.6	3.1	15.5	13.5
22	119	3	1	2	0	25.1	8.4	17.0	0.0
23	512	21	12	9	12	41.0	23.4	17.6	23.4
24	274	6	1	5	5	21.9	3.6	18.2	18.2
25	800	16	1	15	14	20.0	1.3	18.8	17.5
26	871	34	16	18	18	39.0	18.4	20.7	20.7
26	338	7	0	7	4	20.7	0.0	20.7	11.8
27	315	7	0	7	4	22.2	0.0	22.2	12.7
28	986	25	3	22	13	25.3	3.0	22.3	13.2
29	196	4	0	4	1	25.5	0.0	25.5	5.1
30	535	15	1	14	5	28.0	18.1	26.1	9.3
31	340	9	0	9	5	26.5	0.0	26.5	14.7

Note: These figures vary somewhat from the other four-year report because some hospitals were not operating all four years, and thus were not included in this table.

4 A - COMMUNITY HEALTH FACILITY
(under 10 beds)

Montana - 1959

Infant and Fetal Mortalities

Neonatal Rank in Group	Number of Live Births	Number of Deaths				Rate per 1,000 Live Births			
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth
TOTAL	89	1	0	1	3	MEAN 11.2	0.0	11.2	33.7
1	36	0	0	0	0	0.0	0.0	0.0	0.0
1	19	0	0	0	0	0.0	0.0	0.0	0.0
2	34	1	0	1	3	29.4	0.0	29.4	88.2

4 B - COMMUNITY HEALTH FACILITY
(under 10 beds)

Montana - 1956 through 1959

Infant and Fetal Mortalities

Number of Live Births		Number of Deaths				Rate per 1,000 Live Births			
		Infant	1-11 Months	Neonatal	Stillbirth	Infant	1-11 Months	Neonatal	Stillbirth
TOTALS	346	5	1	4	7	MEAN 14.4	2.9	11.6	20.2
1956	94	2	1	1	1	21.3	10.6	10.6	10.6
1957	64	2	0	2	2	31.3	0.0	31.3	31.3
1958	99	0	0	0	1	0.0	0.0	0.0	11.1
1959	89	1	0	1	3	11.2	0.0	11.2	33.7

